



# R10 Umatilla Petition

Figures from Petition Appendices

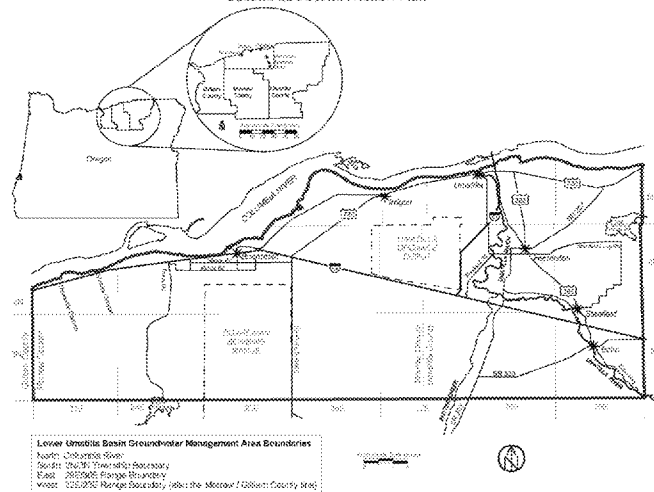
03 18 2020



Briefing paper attached to agenda.

Slides taken from APPX

Figure 2-1  
Location and Boundaries of the Lower Umatilla Basin Groundwater Management Area  
Second LUBGWMA Action Plan



WHO: Food & Water Watch & 8 other entities

What: largely concerned about persistent MCL exceedance of nitrates in GW & CAFOs

LUGWMA includes 562 square miles in Nothern Umatilla & Morrow Counties (communities of Echo, Stanfield, Hermiston, Umatilla, Irrigon & Boardman)

87,062 people in 2 counties.

ODEQ is lead for GWMA, designated ...

Morrow & Umatilla Co Soil and Water Conservation Districts are lead agencies for developing and implementing the Second Local Action Plan, designated by ODEQ

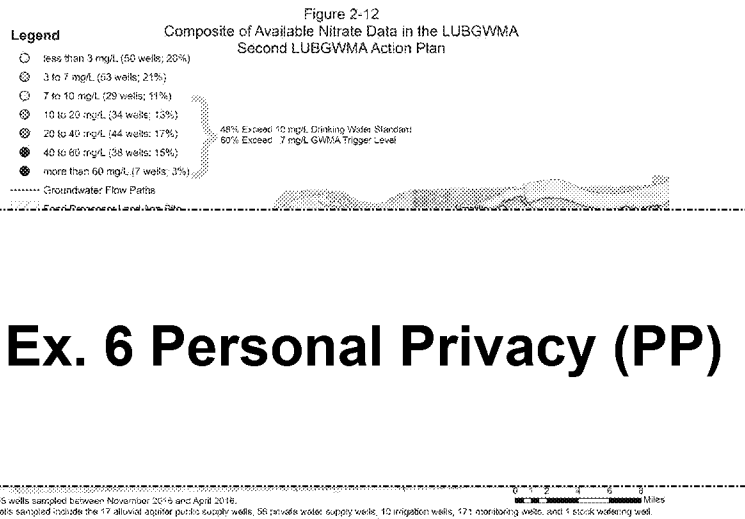
31,490 in LUBGWMA in 6 urban grown boundaries, plus

14,830 est in rural areas GWMA

## Summary of Initial Review

- Petitioner concerns: CAFOs & public health risks from persistent, elevated nitrates
- EPA review on potential for imminent and substantial endangerment of drinking water
  - Sources of contamination, PWSs, & Private wells
- (estimated) 30-40 percent of residential drinking water wells LUBGWMA exceed the national primary drinking water standards for public water supply systems. While not enforceable at private wells, the standard for nitrate of 10 ppm is widely accepted as a public health threshold.
- Data from the LUBGWMA from 1992-2016 shows domestic well water with 20 to 40 ppm nitrate – but is unclear if wells have treatment, universe of wells & current status.
- The Second Action Plan (2019) for the LUBGWMA plan includes outreach on private wells – with questions if actions are sufficient to protect the population of people that use the groundwater for domestic drinking water.

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Petitioner Concerns, incl:

"48%" (high) percentage of private residents exposed to nitrates above safe levels

Proposal by ODA to permit another CAFO in location of former Lost Valley Dairy (exacerbated problems)

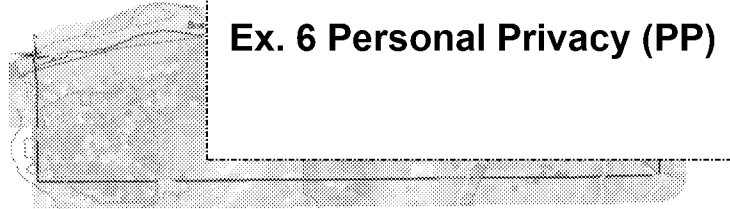
30 year problem with no progress

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Public and Private Drinking Water Wells that Have Exceeded the Nitrate Drinking Water Standard  
Lower Umatilla Basin Groundwater Management Area

## Legend

- Public Water Systems (117 wells; 21% of all PWSs)
- Private Wells (72 wells; likely 30 to 40% of all PWSs)



## Notes

Public wells include both active and inactive Public Water Systems monitored by Oregon Health Authority. Of the 117 PWSs in Umatilla and Knapka Counties, 16 (14%) have exceeded the nitrate drinking water standard at least once. 17 of these wells (14%) are within the LUBGWMA. Of the 31 PWSs in the LUBGWMA, 11 (35%) have exceeded the standard at least once. These percentages do not take into account which aquifer these wells tap. Because some PWSs are only completed in the basal aquifer, the percentage of PWSs wells with high nitrate that utilize only the shallow aquifer is likely higher than 21%.

Private wells on this map include 102 wells from the Great Umatilla Watershed Assessment, 14 wells from the regular LUBGWMA Regional wells, 7 domestic wells that were included in the 2009 Synoptic Sampling Event, and the Navy Scouting Range area. Approximately 15% of the PWS results show nitrate values over the standard. Because the PWS database is known to contain results from treated supplies and treated wells, it is likely not a good indicator of the magnitude or extent of nitrate contamination. Approximately 12% of the domestic wells in the LUBGWMA network show nitrate values over the standard. Approximately 35% of the domestic wells sampled during the 2009 Synoptic Sampling Event showed nitrate values over the standard.

See Footnotes:

Legend: "Private wells (72 wells; likely 30 to 40% of all private wells)" -- Ex. 5 Deliberative Process (DP) wells? NEED TO CLARIFY...

Approximately 30% of domestic wells sampled during 2009 exceeded MCL

"Approximately 42% of the domestic wells in the LUBGWMA network show nitrate above the standard"

NEED more clarity on universe of domestic wells, treatment, and current unaddressed exposure to high nitrates. NOTE: 2nd Action Plan (2019) has action directed at additional outreach/funding/awareness for private wells.



## Considerations

### OECA & OGC national perspective

- Similar petitions elsewhere
- Need to evaluate in timely manner

### Level of effort & additional analysis

- Preference for state lead



Process/Next Steps ...

3/18: Meeting w/ODEQ, ODA, OHA

TBD: Listening session w/petitioners

4/2: LUBGWMA Presentations by EPA  
(re: Yakima Dairies) & Food & Water  
Watch (petitioners)

TBD: Letters to/from ODEQ, ODA, OHA  
following 3/18 meeting

TBD: Written response to petitioner

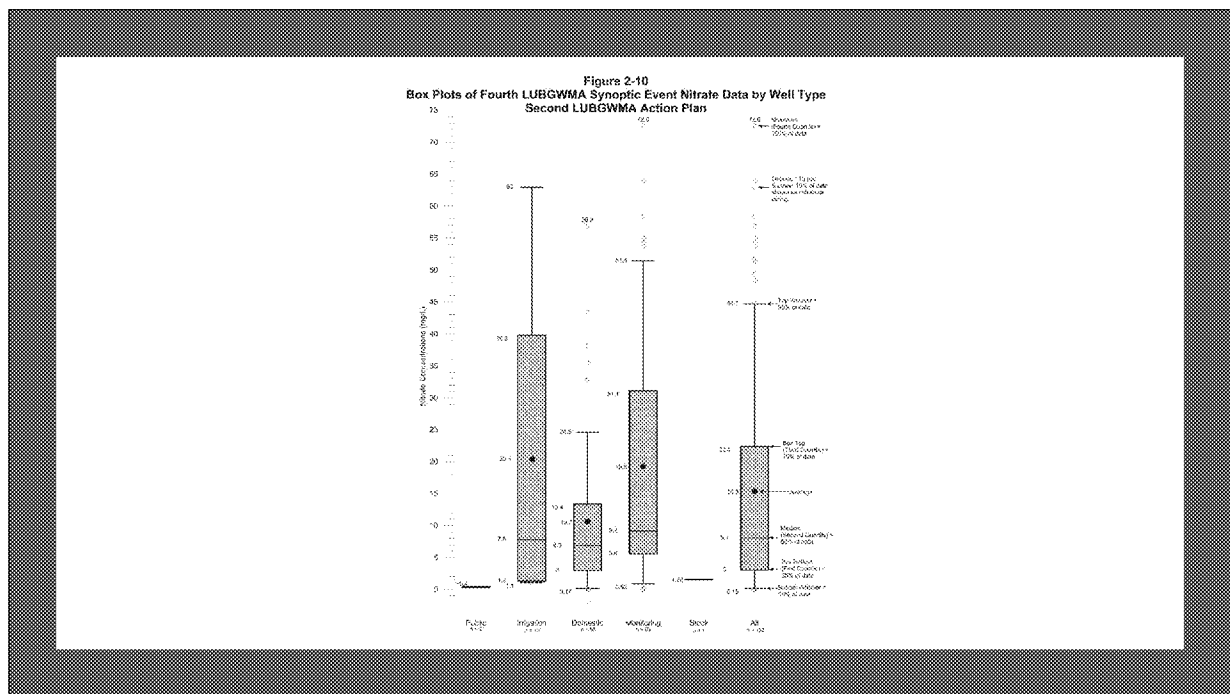


## Options & Roles

What are public health goals?  
What is GWMA currently planning  
(2020 LUBGWMA Plan)?  
What is regulatory authority for  
private wells?

### **Ex. 5 Deliberative Process (DP)**

end



e.g. of data showing nitrate exceedances in domestic drinking water wells versus other monitoring wells

Need further clarification on data, information & efforts on private drinking water wells

Universe

# of exceedances

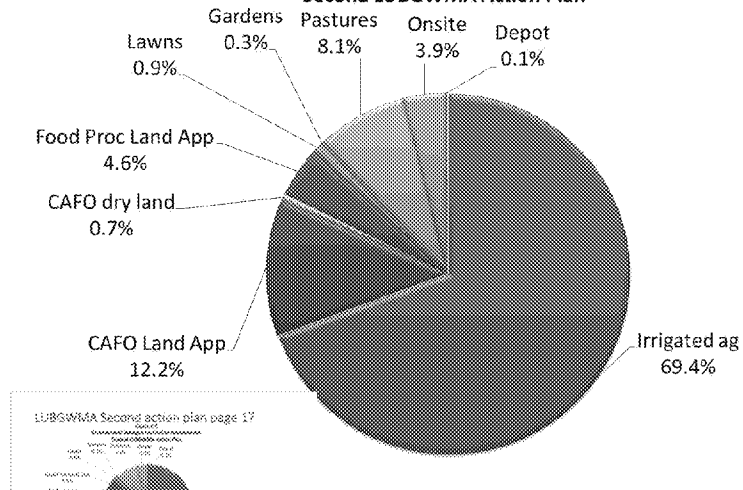
# w/treatment

Assessment of unaddressed exposures.

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Figure 2-5

## Estimation of Nitrogen Leached to Groundwater Second LUBGWMA Action Plan

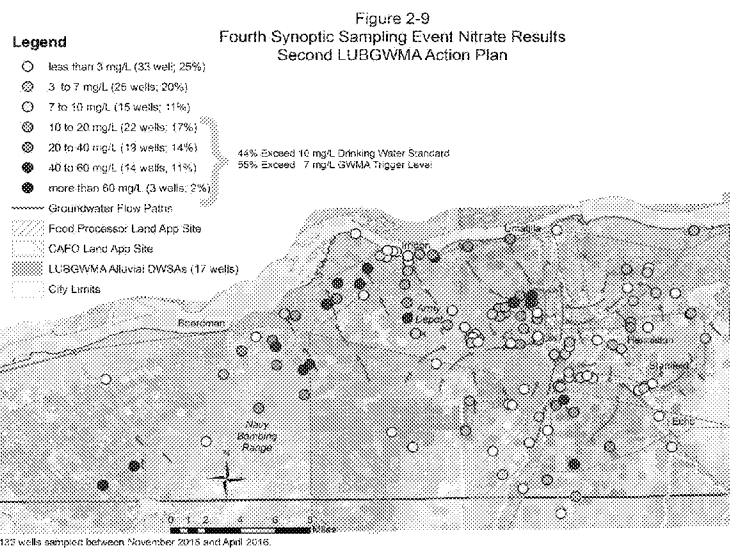


Initial Review of Petitioners Claim re: nitrates & CAFOs

Look @ SOURCES, PWs, & Private wells (w/focus on private wells/exposure)

THIS SLIDE .... Overview of sources .... Note next slide location of sources vs. well exceedances ....

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Overview of Sampling .... This slide Fourth Synoptic Sampling Event Nitrates

Previous Sampling ...

198 wells in 1990/1991 (Reconnaissance Sampling)

31 – 38 wells (LUBGWMA Well Network) - selection of wells mostly being private domestic wells, sampled 4-6 times/year

85 of 255 wells Synoptic Sampling Events) -- 1992, 2003, 2009, 2015/6

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Figure 2-3

Nitrate Leaching Potential Rating of the Lower Umatilla Basin Groundwater Management Area  
Second LUBGWMA Action Plan

 City Limits**NRCS Nitrate Leaching Potential Rating**

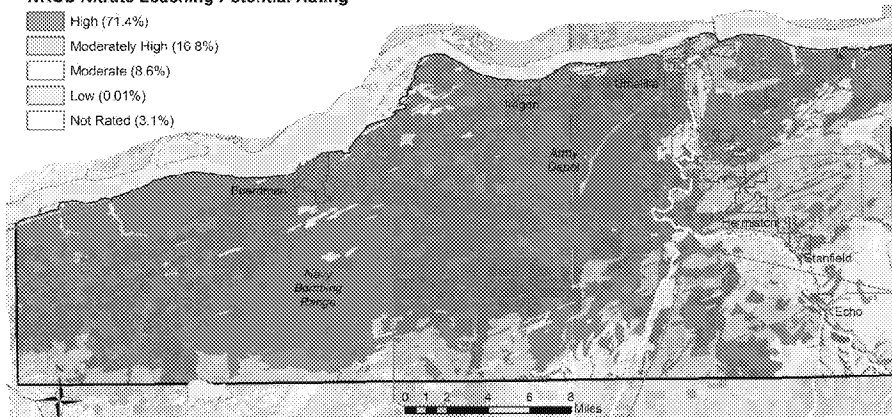
 High (71.4%)

 Moderately High (16.8%)

☐ Moderate (8.6%)

 Low (0.01%)

☐ Not Rated (3.1%)



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